
AN EXAMINATION OF ECONOMIC
ANALYSES APPROACHES FOR
MONTANA'S SEVEN MULTI-
JURISDICTIONAL DRUG TASK FORCES

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EXECUTIVE SUMMARY

INTRODUCTION

- Drug abuse and associated crime continue to be one of the largest social problems in the U.S. Multi-Jurisdictional Drug Task Forces (MJDTFs) emerged in the 1970's, in order to emphasize and provide greater levels of drug law enforcement.
- The Anti-Drug Abuse Act (1998) provided funding for the Bureau Justice Statistics to administer the Edward Byrne Memorial Justice Assistance Grant program (JAG).
- JAG is used to fund state-level programs that address problems resulting from crime, addiction, and drug trafficking. MJDTFs across the country are funded through the JAG mechanism.
- This report outlines the development of a research design to conduct an economic analysis of Montana's seven MJDTFs.
 - It includes a review of the existing literature that has been published on economic assessments of MJDTFs, the feasibility and factors that will be needed to complete an economic assessment, and a review of the importance of existing data needed to conduct the analysis.

THE CURRENT INVESTIGATION

- An economic analysis of Montana's MJDTFs will increase the Montana Board of Crime Control's (MBCC) ability to make informed, evidence-based decisions.
- An economic analysis of Montana's MJDTFs provides the opportunity to critically assess a highly regarded project that could pave the way for future evaluations of grant funded programs.
- An economic analysis of Montana's MJDTFs will allow for a more in depth examination of effectiveness in combating drug issues compared to other drug use and offending intervention and prevention strategies.
- The current investigation includes:
 - A literature review of MJDTF evaluations and other relevant law enforcement initiatives.
 - A review of various methods allowed the identification of the most appropriate economic analysis.
 - A cost-benefit matrix, highlighting the necessary processes and data needed to complete the monetized estimates.
 - A discussion of what can be expected when conducting the analysis.

DRUG TASK FORCE EVALUATION RESEARCH

- There have been a number of prior research studies that have evaluated the effectiveness of MJDTFs, however the evaluations vary in terms of the effectiveness of outcomes measured (Cardenas 2002; Chaiken, Chaiken and Karchmer 1990; Coldren and Sabath 1992; Coldren 1993; Coldren, McGarrell, Sabath, Schlegel, and Stolzenberg 1993; Corsaro, Brunson, and McGarrell 2010; Jeffries, Frank, Smith, Novak, and Travis III 1998; Levine and Martin 1992; Lombardo and Olson 2009; McGarrell and Schlegel 1993; Olson, Albertson, Brees, Cobb,

Feliciano, Juergens, Ramker, and Bauer 2002; Pratt, Frank, Smith, and Novak 2000; Sabath, Doyle, and Ransburg 1990; Schlegel and McGarrell 1991; Sherman 1997; Smith, Novak, Frank, and Travis III 2000).

- The evidence provided from these studies is mixed in terms of the effectiveness of MJDTFs.
- None of these studies employed a cost-benefit model.
- The most consistent support in the literature suggests that MJDTFs increase communication and coordination, which are essential components of effective policing strategies (Coldren et al. 1993 and Smith et al. 2000).
- Other evidence shows that cases presented for prosecution by MJDTFs were more likely to result in convictions, less likely to have charges reduced, and considerably more likely to result in a sentence to prison when compared with similar types of arrests made by local police departments (Olson et al. 2002).
- Many studies present mixed results on the effectiveness of MJDTFs but, a meta-analysis of drug law enforcement strategies found that MJDTFs and drug-free zones were the only two strategies categorized as lacking evidence of effectiveness (Mazerolle, Soole, and Rombouts 2007).
- Almost all of the reviewed studies used aggregate data from drug arrests and resulting prison sentences received by those convicted of drug offenses.
- The use of offender-level data, such as criminal history, employment history, and criminality pre- and post-intervention, was also common.

ECONOMIC APPROCHES FOR ASSESSING PROGRAM EFFECTIVENESS

- As no single study used an economic-based framework for assessing the effectiveness of MJDTFs, there is no direct model available that could be used as a framework to help inform the current investigation.
- Upon the review of these studies, it is clear that there is good reason as to why most program evaluations do not include the economic assessment that is proposed in the current investigation.
 - Part of this is explained by an absence of clear objectives upon which the programs could be evaluated, which is compounded further when the amount of data required for a comprehensive evaluation is considered.
 - There is a need to bridge the fields of economics and criminology, as approaches to these problems are different for researchers from these fields of study (Cohen and Bowles 2010).
- Despite the challenges, there are notable benefits associated with economic assessments of MJDTFs.
 - An economic assessment reorients the research question and, rather than examining what works and what does not, the benefits will be evaluated in terms of whether or not they were worth the investment.
 - The objectivity of economic assessment approaches disqualifies attitudes and opinions about the programs.
- There are many types of economic analysis tools available to researchers and it is important to consider each of these tools' objectives and applications.
 - It is imperative that goals and objectives of the research be a salient component of the decision making process.
 - Cost analysis is typically the first step in any economic assessment; it is most often used in conjunction with other forms of economic assessment methods and is less likely than the other approaches reviewed to be used as a standalone approach.

- In the current investigation, cost analysis provides a picture of the total cost to MBCC associated with the funding of the State's, seven MJDTFs.
- It is the position of the Criminology Research Group that the most appropriate approach to an economic assessment of MJDTFs in Montana will be found through a cost-benefit approach.
 - This approach will provide for the costs that have been previously established along with additional marginal costs such as those associated with the incarceration of non-serious offenders to be compared with the benefits that are obtained through the efforts of MJDTFs.
 - In order to conduct a cost-benefits analysis, each of the values examined will be required to have a monetary value assigned to them.
 - This approach is entirely objective and will provide for an indication of the benefits received from MJDTFs per dollar that is required to operate them.
 - This evidence can then be used by MBCC as part of a comprehensive decision-making process as to whether or not JAG funds will continue to be largely spent on these activities in the future.

ESTIMATING COST AND BENEFIT DOMAINS

- The purpose of a cost-benefit analysis of MJDTFs in Montana is to gather evidence that can be used to more fully gauge the benefits to the State and local communities relative to the costs associated with the funding and support of MJDTF activities.
- The approaches to the estimates that follow in this section were guided by three factors: the availability of existing methodologies/models that had been used in the prior literature, the ability to develop a sound operational definition that could be used to monetize the cost or benefit associated with MJDTFs was considered, and, most consequential to the model presented below, the availability of existing data that could be used as a basis for the monetized estimate.
- Cost Domains
 - Estimates for cost domains are derived from the review of prior examinations of MJDTFs.
 - It is important to consider that items within the domains may overlap in some cases and care should be taken in the estimation to ensure that there is no duplication across more than one cost domain that could bias the total estimate.
 - Cost domains include: criminal justice costs; loss of productivity for incarcerated offenders; officer time spent on MJDTF activities; civil and/or criminal litigation resulting from MJDTF activities; fear of drug-related crime; community disruption as the result of drug-related crime.
- Benefit Domains
 - Similar to the caution regarding estimates of cost domains, care should be taken in the estimation to ensure that there is no duplication across more than one benefit domain that could bias the total estimate.
 - Benefit domains are linked to the mission statements of Montana's MJDTFs and the five objectives that were derived from a review of applications for JAG funding of current MJDTFs.
 - Benefit domains include: communication and collaboration between law enforcement agencies; identification, targeting, and addressing those involved in drug manufacturing, trafficking, and/or drug-related violence; curtailing the use of dangerous drugs; reducing supply and demand of dangerous drugs; disruption and

dismantling of drug organizations; additional benefits. Collaboration with members of the MBCC yielded an additional benefit domain “media and public knowledge of MJDTF Work.”

CONDUCTING THE COST BENEFIT ANALYSIS

- In order to generate the estimates for the cost and benefit domains, outlined in the previous section, both existing data and new data will be needed.
 - In those instances where new data will be needed, discussion will need to take place about how the data will be collected, where the funds needed to collect the data will be located, and whether or not the time and costs associated with the generation of the new data are important enough to pursue.
 - In the event that needed data are only available for some MJDTF locations; estimates based on regression scores or average scores, from locations where the data is known, can be used to predict what the scores would likely be in those places for which data is not currently available.
- There are a number of currently existing sources of data that can be used to measure the costs and benefits of MJDTF activities in Montana.
 - MJDTF records will be needed to verify the dollars that were spent to cover operating costs, officers’ time spent on MJDTF activities, civil or criminal litigation costs that resulted from MJDTF activities, and evidence to support the offender was involved in manufacturing, trafficking, and/or drug-related violence.
 - A key piece of the information will come from the Montana Incident-Based Reporting System (MTIBRS), which is the central repository for all criminal offense and arrest data in Montana.
 - The Offender Management Information System (adults) and Juvenile Court Accountability and Tracking System will be used as along with the MTIBRS for information on prior criminal histories.
 - The Detention Data Information System (adults) and Juvenile Detention Data Reporting System will provide information on prior incarceration and time spent in secure detention.
 - Data will need to be requested from medical and healthcare organizations to estimate costs associated with drug crime and drug abuse and the benefits associated with desistance from drug use.
- Primary Data that will be Needed
 - Montana Statewide Victimization Survey (MSVS)
 - The data collection for the MSVS will take place in late 2015 or early 2016 and will involve the collection of data based on questions asked in the 2010 Montana Crime Victimization and Safety Survey.
 - Additional questions will be added to the MSVS that specifically address victimization associated with drug-involved crime, attitudinal questions about residents’ views on the ability of the police to effectively manage drug-related crime, and behavioral questions about avoidance behaviors and precautions that residents are taking to avoid and/or protect themselves from drug-related crime.
 - New to the 2015 survey will be a sub-sample based on non-residents who are living in Northeastern Montana for extended periods of time associated with the work that they are doing in the Bakken Oil Shale.

- Montana Jail Administrators Survey
 - Will be modeled after the survey instrument used in the Federal Survey of Jails, will be conducted in 2015.
 - Information about drug-involved offenders will be solicited as well as information on the issues that these offenders are involved in while being held in jail.
- Community Attitudes and Perceptions of Safety Survey
 - The survey would ask questions to residents about community issues regarding drug-involved offenders that will not be included on the 2015 MSVS.
 - This survey would not take place prior to 2016 and is contingent on funding.
- MJDTF Officer Survey
 - This survey would include both closed-ended and open-ended questions that would require officers to provide narratives about their experiences working on drug task forces and perceptions of the effectiveness of this work.
 - Searching for the funding to cover the costs associated with the development of the surveys, administration to MJDTF officers, and analysis of the data should begin as soon as possible.

DISCUSSION AND CONCLUSION

- The purpose of the cost-benefit analysis that has been advocated is to gather evidence that can be used to more fully gauge funding and support of MJDTF activities.
- This information provides for an evidence-based assessment of funding decisions about MJDTFs in the future by the Montana Board of Crime Control.
- In planning for putting the research design in to practice, the following considerations are merited:
 - Care will need to be taken to ensure that all estimates of the cost and benefit domains are mutually exclusive.
 - There are reliability threats associated with knowing MJDTFs activities result in the cessation of drug-related activities, or under the valve theory position, that they are simply displaced to other areas that are not part of the MJDTF (see Karmen 1990 for an extended discussion of valve theory).
 - It is important to recognize the limitations of the cost-benefit approach; in particular, no estimates have been made of the monetary value of fear of crime, social degradation, or avoidance behavior by potential victims (for recent attempts to fill some of these gaps, see Cohen and Piquero 2009; Dolan et al. 2005; Moore 2006).
 - Consideration should be given to the advantages and limitations associated with the length of time and unit of analysis that the estimates of costs and benefits will be based.
 - There is a need to include law enforcement perspectives in this process moving forward.
- It is imperative that a means to provide evidence on the effectiveness of MJDTF activities in Montana be developed and systematically used to justify future funding decisions.

SECTION ONE: INTRODUCTION AND STATEMENT OF THE PROBLEM

Drug use and the crime that is associated with it have historically been and continue to be one of the largest social problems in the United States. As early as the 1970's fueled by the reality that drug markets cross over jurisdictional boundaries, Multi-Jurisdictional Drug Task Forces (MJDTFs) have emerged to aid the increasing emphasis on drug crime and drug law enforcement. The premise behind these MJDTFs has been that increasing the levels of cooperation and coordination between law enforcement agencies will lead to greater reductions in the supplies of and demands for illicit drugs.

In the 1980's, as part of the national movement on the war on drugs, efforts to mobilize local level policing efforts to combat drug trafficking were increased when the U.S. Congress passed revisions to the Anti-Drug Abuse Act in, 1986 and 1988. By 1992, Coldren and Sabath reported that there were more than 100 MJDTFs operating across the United States. The legislation contained in the 1998 Anti-Drug Abuse Act provided funding for the Bureau of Justice Statistics to administer the Edward Byrne Memorial Justice Assistance Grant (JAG). JAG is used to fund programs at the state-level to combat problems that result from crime, drug addiction, and drug trafficking. MJDTFs across the country are funded through the Anti-Drug Abuse Act.

Montana has maintained a High Intensity Drug Trafficking Area (HIDTA) designation since 2001 and is a member of the Rocky Mountain HIDTA. As Montana's State Administering Agency (SAA), the Montana Board of Crime Control (MBCC) has been designated to receive JAG block grant funding from the U.S. Department of Justice, Bureau of Justice Assistance for more than 20 years. Montana has received JAG funds from 2005-2012 in the amount of \$9,280,498. This dollar amount does not include the additional \$3,165,819 in American Recovery and Reinvestment Act (ARRA) funds provided in 2009. The majority of these JAG funds have been used to support local MJDTFs statewide, within the "law enforcement" program area.

Priority continuation of JAG funding has been given by MBCC to the seven MJDTFs throughout the state in support of their efforts to detect and apprehend drug traffickers and illegal drug offenders. It has been determined by collaboration between the MBCC Anti-Drug Committee and the MJDTFs that the yearly JAG funding level necessary to adequately fund the MJDTFs and to keep them "whole" is approximately \$1,500,000. MBCC desires to fund additional programs allowable under the seven program areas of JAG, however unless the future amount of annual JAG funds available from MBCC increases, it is anticipated that very few additional programs, if any, will be funded within the next several years.

The missions of Montana's seven multi-jurisdictional Drug Task Forces is to "provide a collaborative federal, state, and local law enforcement effort to identify, target, and address those involved in drug trafficking, manufacturing, and/or violence. The task forces will utilize sophisticated long-term investigative approaches, including undercover surveillance to disrupt and dismantle targeted drug organizations."

A major perceived benefit of the MJDTFs is justice served through the apprehension of drug users, traffickers, and dealers. A review of the number of possession related arrests in chart 1 shows that the MJDTFs arrest offenders for drug possession related offenses from the range of approximately 48% of total MJDTF arrests in 2007 to 71% of total MJDTF arrests in 2009. Manufacture and distribution charges combined account for, at most, approximately 30% of MJDTF arrests occurring in 2007. The lowest percentage of total arrests for manufacture and distribution arrests occurred in 2012 at approximately 22%. It is uncertain to what extent the drug possession arrests contribute to

future manufacture and distribution arrests as the MJDTFs deploy long-term investigative approaches.

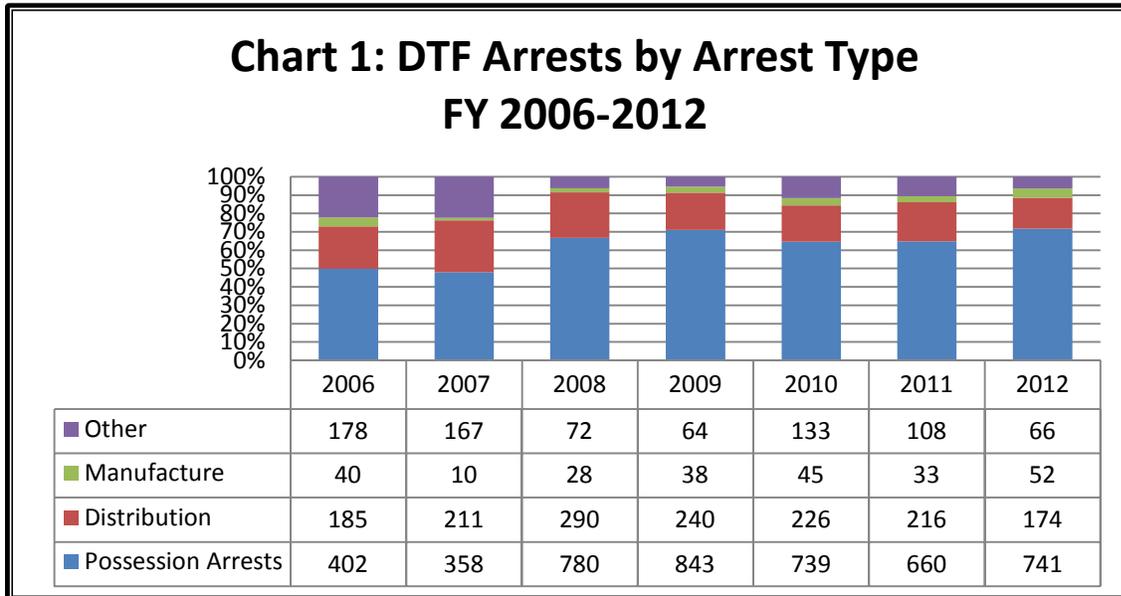


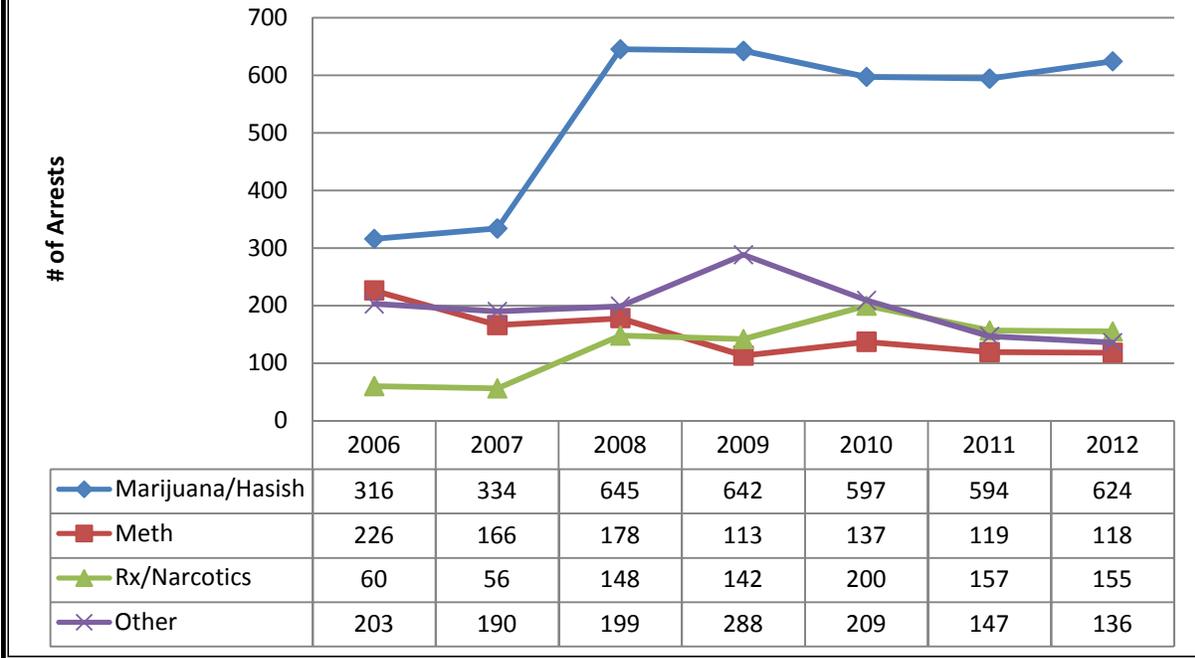
Chart 2, below, shows the arrests by drug type that the MJDTFs reported from 2006-2012. In 2008, there was a large increase of approximately 300 arrests for Marijuana/Hashish while Rx/Narcotics increased almost by 100 arrests for that same year. From 2008-2012 the number of Marijuana/Hashish and Rx/Narcotics arrests fluctuated slightly from their major increase in 2008. However, when comparing 2008 to 2012, the data show only minor changes in the arrest numbers. Methamphetamine related arrests decreased by approximately 100 arrests from 2006-2012.

For an example of the costs associated with the MJDTF, MBCC was awarded a JAG grant in the amount of \$1,124,362 for the 2011 fiscal year. Of those funds, \$914,178 was directly allocated to the seven MJDTFs. During that same time-frame the MJDTFs made 1,017 arrests, amounting to the cost of approximately \$898.90 per arrest from JAG funds alone.

A thorough economic analysis of Montana’s MJDTFs will shed much needed light on a statewide initiative receiving a super-majority of JAG funds. The current program measurements of counts of arrests, offenses, incidents, drug endangered children, forfeitures and seizures obtained, talks and classes given by the MJDTFs, and informant expenses could be expanded greatly to fully examine the impacts of the MJDTF operations in Montana’s communities.

This project provides for the development of a research design to conduct an economic analysis of Montana’s seven MJDTFs. It will include a review of the existing literature that has been published on economic assessments of MJDTFs, the feasibility and factors that will be needed, and a review of the importance of existing data to conduct the analysis. Contained within this document is a research proposal, based on the review of the literature, for conducting an economic assessment of MJDTFs in Montana.

Chart 2: DTF Arrests by Drug Type FY 2006-2012



*Other Category for Drugs includes: Mushrooms, Heroin, Cocaine, Cocaine + 1 Other Drug, Heroin + 1 Other Drug, Meth. + 1 Other Drug, Marijuana + 1 Other Drug, 3+ Drugs, Ecstasy, Meth and Cocaine, Other and Unknown/NA

THE CURRENT INVESTIGATION

An economic analysis of Montana’s seven MJDTFs will provide for more sound MBCC funding decisions. Supporting projects on the mere premise that an entity is politically entrenched and traditionally funded occurs. Montana has an opportunity to critically assess a highly regarded project that could pave the way for future evaluations of grant funded programs. Horowitz and Zedlewski (2006) say, “Program evaluations provide important information to policymakers on the kinds of interventions likely to yield effective results” (pg. 52).

Funding the MJDTFs may be the most cost-effective way at addressing drug-related issues in Montana. Without an economic analysis, however, that certainty is unknown. Additionally, Lombardo and Olson (2009:46) say, “While most agree that controlling the drug problem requires involving the public health and educational systems, the criminal justice system is often the first to respond to emerging drug problems”. Montana is using a majority of its JAG funds to support the MJDTFs while little funding is used to support education and treatment for drug abuse. A full economic analysis would allow for a more in depth examination of the MJDTFs while comparing the programs to other drug use and offending intervention and prevention strategies. However, before an economic analysis can be performed, Montana must first identify the most appropriate approach to use based on available data, time, and project costs.

The first step in the current investigation had researchers at the Criminology Research Group conduct an extensive literature review on studies that have examined and evaluated MJDTFs approaches to conduct an economic assessment of MJDTFs and other relevant law enforcement

initiatives to pinpoint the important considerations to include in a full economic analysis (Section Two). Next, a review of the different methods available for conducting economic assessments were completed (Section Three). Using the completed literature review as a guide, a matrix outlining the various cost-benefit domains was constructed. Whenever possible, prior research was used as the foundation for the process and required data that will be needed to complete the estimates (Section Four). Discussion of the findings, limitations that can be expected in the estimation, and conclusions for moving forward are presented in the final section of the report (Section Five).

SECTION TWO: DRUG TASK FORCE EVALUATION RESEARCH

Although drug issues have been among the most important social problems in the last three decades, few studies have examined the effectiveness of law enforcement responses to this crisis. This is particularly true of the MJDTFs that have emerged as a primary means to uncover, disrupt, and apprehend those involved in the distribution and selling of drugs in the United States. This is problematic as significant funds have been devoted to drug law enforcement and there is little information on whether these approaches are effective and the benefits derived from them are worth the costs that it takes to operate MJDTFs.

A review of the literature, published since the war on drugs intensified in the mid 1980's, yields a number of prior research studies that have evaluated the effectiveness of MJDTFs (Cardenas 2002; Chaiken, Chaiken and Karchmer 1990; Coldren and Sabath 1992; Coldren 1993; Coldren, McGarrell, Sabath, Schlegel, and Stolzenberg 1993; Corsaro, Brunson, and McGarrell 2010; Jeffries, Frank, Smith, Novak, and Travis III 1998; Levine and Martin 1992; Lombardo and Olson 2009; McGarrell and Schlegel 1993; Olson, Albertson, Brees, Cobb, Feliciano, Juergens, Ramker, and Bauer 2002; Pratt, Frank, Smith, and Novak 2000; Sabath, Doyle, and Ransburg 1990; Schlegel and McGarrell 1991; Sherman 1997; Smith, Novak, Frank, and Travis III 2000). The review of the findings from these studies however shows that the evaluations vary in terms of the effectiveness of outcomes that were measured. The evidence provided from these studies is mixed in terms of the effectiveness to which MJDTFs reach or achieve their stated goals and objectives. Furthermore, none of these studies employed a cost-benefits model like the one proposed in the current investigation.

One of the first ever evaluations of MJDTFs was conducted by Sabath, Doyle, and Ransburg (1990). Their study was based on quarterly report data that included information on the numbers of drug arrests and street dollar values of drug seizures; it was supplemented with interviews with drug task force commanders. The researchers concluded that there was sufficient evidence that the drug task forces in Indiana, which had been running for two years prior to the investigation, had met the goals and objectives for which they were established. These included (1) arresting and prosecuting major drug dealers, (2) reducing the availability of drugs in task force jurisdictions, and (3) establishing cooperative working relationships with other drug enforcement agencies.

The most consistent support in the literature was associated with evidence suggesting that MJDTFs led to increases in communication and coordination (see Coldren et al. 1993 and Smith et al. 2000). According to Schlegel and McGarrell (1991) the drug task forces were designed to facilitate communication and coordination both within the drug task force and between the drug task forces and outside law enforcement agencies. Communication and coordination between police agencies are essential for effective strategies and the ability to perform the complex and demanding tasks associated with the enforcement of drug laws.

Olson et al. (2002) also found support in the evidence gathered. Their findings showed that cases presented for prosecution by MJDTFs were more likely to result in convictions. Those cases that were connected with MJDTFs were found to be less likely to have charges reduced in the court processes, and were considerably more likely to result in a sentence to prison when compared with similar types of arrests made by local police departments.

Many of the studies reviewed found mixed support in the evidence regarding whether or not MJDTFs were meeting their stated goals and objectives. In contrast, the evidence reported in Mazerolle, Soole, and Rombouts (2007) meta-analysis of a drug law enforcement methods failed to find support for MJDTFs. The authors completed a comprehensive review of the literature and compared findings from existing evaluations. The data was then coded based on the type of enforcement strategy and was then categorized by the findings from their review. Based on the evidence, the strategies were placed in one of four categories (evidence of effectiveness, evidence of lack of effectiveness, mixed evidence of effectiveness, or inconclusive evidence). MJDTFs, included as a standalone category in the analysis, was one of only two evaluated approaches (drug free zones) categorized as “lack of effectiveness” based on the evidence.

There were a variety of methodologies used in the studies that were reviewed. Almost all of the studies used aggregate data from drug arrests and resulting prison sentences received by those convicted of drug offenses. The use of offender-level data was also common. These included information regarding the offenders previous criminal history, their employment histories pre and post arrest, and their subsequent offending history after release from a drug-related incarceration.

Some of the data in the studies that were reviewed were based solely on interviews with stakeholders listed on the memorandum of understanding (Cardenas 2002; Jefferies et al. 1998) or surveys of task force commanders and officers who were participating in MJDTF efforts (Pratt et al. 2000). Lombardo and Olson’s (2009) study consisted of data to measure the explanatory power of variables associated with decision making by local law enforcement administrators and policy makers. Other studies utilized methodologies that incorporated a combination of offender data, interviews and surveys to evaluate MJDTF effectiveness (Olson et al. 2002; Franks et al. 1998).

A small number of studies in the review employed a methodology that examined changes over time between counties that were involved in MJDTFs and counties that employed traditional law enforcement approaches only (Schlegel and McGarrell 1991; Olson et al. 2002; State of Georgia 2013). These studies allow for comparisons to be made to evaluate whether there are differences in outcomes measured the level of drug arrests, the types of drugs that are seized, characteristics of the targets (serious versus minor offenders) in drug investigations, likelihood of arrests, and length of arrests for those convicted of drug offenses.

SECTION THREE: APPROACHES TO ECONOMIC ASSESSMENTS OF PROGRAM EFFECTIVENESS

As mentioned above, the review of the literature did not uncover even a single study that used an economic-based framework for assessing the effectiveness of MJDTFs. As a result, there is no direct model available that could be used as a framework to help inform the current investigation. There is however a series of articles in the extant criminological literature that have used economic based approaches for evaluating the effectiveness of a variety of criminal justice programs.

The types of programs examined in these studies include private security (Zedlewski 1983), a youth delinquency prevention program that targeted health care for newborn babies (Greenwood 1996), and antisocial outcomes measured as lack of a high school diploma, lifetime drug addiction, and career criminality (Cohen 1998). The most closely related of these is the 2006 study by Horowitz and Zedlewski that examined a series of studies on police interventions.

What is clear upon the review of these studies and Zedlewski's 2010 paper, "Adding value to Justice Outcomes Evaluations," is that there is good reason as to why most program evaluations do not include the economic assessment that is proposed in the current investigation. Part of the explanation as to why there are so few economic assessments of criminal justice programs is the result of an absence of clear objectives upon which the programs could be evaluated. This problem is compounded further when considering the data issues associated with what would be needed to comprehensively evaluate program objectives. An additional consideration is the need to bridge between the fields of economics and criminology. The approaches to these problems, as Zedlewski notes (2010:8), are different for criminologists and economists.

Despite the challenges, there are notable benefits associated with economic assessments of MJDTFs. The first of these is the reorientation of the research question that is being asked. In an economic assessment, the research question is no longer about what works and what doesn't within MJDTFs, but rather are the benefits that are gained worth the monetary investment that is required. An additional benefit is the objectivity of economic assessment approaches. As these approaches are solely concerned with benefits received with respect to the economic costs associated with them, there is no room for attitudes and opinions about the programs.

The literature review above shows that there are many types of economic analysis tools available to researchers. It is important to consider that each of these tools have certain objectives that they can achieve and are useful for. As a result, it is imperative that goals and objectives of the research be a salient component of the decision making process. In the mission statement pertaining to MJDTFs in Montana, presented above, collaboration between federal, state, and local law enforcement agencies is stated to increase the ability to identify, target and address those involved in drug trafficking, manufacturing, and/or drug-related violence. These are the primary outcomes upon which the economic assessment should be based.

In practice, cost analysis is typically the first step in any economic assessment. It is most often used in conjunction with other forms of economic assessment methods and is less likely than the other approaches reviewed to be used as a standalone approach. In the current investigation, cost analysis provides a picture of the total cost to MBCC associated with the funding of the State's seven MJDTFs. This information is currently available through the end of the JAG award for FY 2011.

MBCC was awarded a JAG grant in the amount of \$1,124,362 for the 2011 fiscal year. Of these funds, \$914,178 was directly allocated to the seven MJDTFs. During that same time-frame the MJDTFs made 1,017 arrests amounting to the cost of approximately \$898.90 per arrest from JAG funds. Additional information compiled by the Statistical Analysis Center at the Montana Board of Crime Control shows that the cost per incident was \$44.80 and the cost per offense was \$450.33.

Two additional tools are also commonly used. These are fiscal impact analysis and cost effectiveness analysis. Fiscal impact analysis is used to determine if a program or policy of interest is affordable when considering the budget of the policymaker. Cost effectiveness analysis is used in order to assess which program or policy produces the desired results at the lowest price. Although a cost-effectiveness analysis is useful for comparing two programs with the same results, it cannot

be used to compare programs that have different goals. Given the objective of the current project, neither of these tools appears to be suitable for the economic analysis of Montana’s MJDTFs.

What type of economic analysis approach would be the most practical and sufficient assessment of the MJDTFs? It is the position of the Criminology Research Group, based on evidence in the review of the literature, that the most appropriate approach to an economic assessment of MJDTFs in Montana will be found through a cost-benefit approach. This approach will provide for the costs that have been previously established along with additional marginal costs such as those associated with the incarceration of non-serious offenders to be compared with the benefits that are obtained through the efforts of MJDTFs.

In order to conduct a cost-benefits analysis, each of the values examined will be required to have a monetary value assigned to them (monetized value). As noted above, the difficulty in being able to monetize the benefits associated with criminal justice programs have been largely due to problems with clearly established goals and objectives for the programs and the availability of existing data to operationalize these into economic values. The strength of this approach is the evidence used in the assessment is entirely objective that will provide for an indication of the benefits received from MJDTFs per dollar that is required to operate them. This evidence can then be used by MBCC as part of a comprehensive decision-making process as to whether or not JAG funds will continue to be largely spent on these activities in the future.

The information found at www.Cbkb.org suggests a four step process to complete a cost-benefit analysis:

1. Assess the impact of the policy or program.
 - Does it work? Does it achieve the desired goal? If the policy or program cannot be directly assessed, is it an evidence-based practice or a promising program? Have similar programs been evaluated and shown to be effective.
2. Measure the costs of the policy or program.
 - This step is the first tool mentioned, a cost analysis.
3. Measure the benefits of the policy or program.
 - What is the dollar value of the benefits provided by this program or policy? Who is benefiting from this program or policy? How are the benefits distributed between the groups who benefit from the program or policy?
4. Compare the costs to the benefits.
 - In the long-run, do the benefits outweigh the costs of this program or policy? Are there alternative options that can provide a greater return on investment?

SECTION FOUR: MONTANA MJDTF ECONOMIC ASSESSMENT RESEARCH DESIGN

THE PURPOSE/OBJECTIVE OF A MJDTF COST-BENEFIT ANALYSIS

The purpose of a cost-benefit analysis of MJDTFs in Montana is to gather evidence that can be used to more fully gauge the benefits to the State and local communities relative to the costs associated with the funding and support of MJDTF activities. The approaches to the estimates that follow in this section were guided by three factors. The first of these is the availability of existing methodologies/models that had been used in the prior literature reviewed above. In those cases where researchers had previously developed a conceptually sound method for estimating monetary

costs and benefits, adherence to these methods is followed. Second, in those instances where no prior research evidence exists, the ability to develop a sound operational definition that could be used to monetize the cost or benefit associated with MJDTFs was considered. Third, and perhaps most consequential to the model presented below, is the availability of existing data that could be used as a basis for the monetized estimates.

In the remainder of this section of the report, narrative for the costs and benefits needed to complete an economic assessment of MJDTFs in Montana is presented. For each cost and benefit domain, a general definition, data that will be required to measure the domain, and the operational definition of how the domain will be measured with data is presented. A bulleted summary of these is found in the “Cost Benefit Matrix” in Appendix A.

The cost domains are derived from the review of prior examinations of MJDTFs. The review of extant literature resulted in eight cost domains. It is important to consider that items within the remaining seven cost domains may overlap with cost domain one which is an estimate of the total operating costs. Care should be taken in the estimation to ensure that there is no duplication across more than one cost domain that could bias the total estimate.

Five of the six benefit domains are linked to the mission statement of Montana’s MJDTFs and the five objectives that were derived from a review of applications for JAG funding of current MJDTFs. These include: communication and collaboration between law enforcement agencies; identification targeting, and addressing those involved in drug manufacturing, trafficking, and/or drug-related violence; curtailing the use, and reducing supply and demand of dangerous drugs; disruption and dismantling of drug organizations; additional benefits. Collaboration with members of the Montana Board of Crime Control yielded an additional benefit domain, “media and public knowledge of MJDTF Work.” Similar to the caution regarding estimates of cost domains, care should be taken in the estimation to ensure that there is no duplication across more than one cost benefit that could bias the total estimate.

ESTIMATING THE COSTS OF MJDTFS IN MONTANA

OPERATING COSTS

The total operating cost of MJDTFs includes: the total of JAG funds provided to MJDTFs, the total contributions from participating agencies, and any other costs. These costs should be easily arrived at by summing the totals from agency records. Operating costs must include both monthly costs, such as utilities, and yearly costs, such as salaries and equipment.

CRIME VICTIMS COSTS

Criminal victimization can lead to physical and psychological harm which can negatively affect a victim’s income and productivity. Criminal victimization often results in unnecessary healthcare and protective costs, and can lead to higher levels of victimization (Bunch, Clay-Warner, and McMahon-Howard, 2013; Kilpatrick, Saunders, Veronen, Best, and Von 1987; Coker, Davis, Arias, Desai, Sanderson, Brandt, and Smith 2002; Campbell, 2002). Once victimized, some people relocate in order to avoid further risk of victimization (Dugan, 1999; Xie, McDowall 2008).

Some information on these costs can be accessed from records such as the MTIBRS. In order to determine the costs of drug-crime to their victims, a state-representative victimization survey can be used. However, because drug abuse is a vice crime, it may be difficult to attribute victimizations to drug-crime. For example, if a person is robbed at gunpoint the victim may have no way of knowing if the person was on drugs. Only upon the robbers arrest will the police have a chance of learning whether or not drugs influenced the robbery. In their 2006 study, Miller, Levy, Cohen, and Cox found: 31% of inmates were under the influence of drugs at the time of the offense; almost 6% of inmates committed the offense to obtain money for drugs; and these drug-attributable crimes were estimated to cost \$38 billion in 1999.

On a self-report victimization survey, out of pocket costs used for various expenses related to victimization can be reported. Depending on the type of victimization, some people will need to replace a broken window or stolen bicycle while others will require surgical procedures or counseling. Depending on the victim and how they deal with their victimization, they may decide to relocate or avoid certain places in the future. These out of pocket costs should be reported as well. Crime victims may be unable to return to work and when they do may only be able to work part-time. The victim's loss of income and productivity should also be addressed in the victimization survey.

Self-report surveys may not be the most ideal method of monetizing the costs of drug-crime victimization. Victims may be destitute and unable to or not willing to use their limited dollars to restore them to their pre-victimization state. Depending on the type of victimization, various monetizing methods may be used and McCollister, French, and Fang (2010) provide crime-specific estimates of these costs to society. The cost of illness method can be used to monetize pain and suffering (Hodgson and Meiners 1982; Cartwright 2008). Compensatory jury awards for non-fatal injuries are not meant to be punitive and are often predictable when the type of victimization is known (Cohen 1988). The quality adjusted life year method is useful for monetizing both psychological and physical harm that can result from victimization (Dolan, Loomes, Peasgood, and Tsuchiya 2005). Contingent valuation is a monetizing method useful for providing cost estimates where other methods encounter difficulty. Intangible costs and various costs related to violence can be addressed using contingent valuation (Atkinson, Healy, and Mourato 2005; Rajkumar and French 1997; Ludwig and Cook 2001).

CRIMINAL JUSTICE COSTS

Criminal justice costs include all MJDTF costs related to policing, prosecuting, and applying sanctions to those who are involved in drug-related crime. Any federal, state, or local resources committed to MJDTF activities by outside agencies need to be recorded. All resources expended on detaining, incarcerating, or applying an alternative sanction to the drug-offender must be recorded. The total number of hours necessary to carry out the pre-intervention detention and the intervention should be matched with the hourly wages of each personnel involved. All resources expended on court proceedings for each MJDTF case is needed. The total number of hours necessary to carry out the court process should be matched with the hourly wages of each personnel involved. This information should be easily obtained from agency records.

LOSS OF PRODUCTIVITY AND OPPORTUNITY FOR INCARCERATED OFFENDERS

While incarcerated, offenders are not able to meaningfully contribute to society. Offenders lose jobs, the ability to be physically involved in family life, and engagement in civic activities within the community. Incarceration is a costly sanction and it is quite possible that many incarcerated offenders would benefit from a less costly, rehabilitative alternative. The offender's lost productivity can be calculated by applying a pairing of Montana's minimum wage with a 2,000-hour work year and multiplying the product with the number of years the offender is incarcerated (McCollister, French, and Fang 2010).

The duration of imprisonment can be considered a loss of life in the number of years spent incarcerated. Many studies have attempted to estimate the monetary value of a human life and Landefeld and Seskin (1982) provide an overview of various monetizing methods, including; human capital, willingness to pay, and a combination of the two. Different methods of cost estimation arrive at different values for a human life. Regardless of the monetizing method chosen, the value of a life should be paired with average life expectancy, in years. This will allow for monetization of a human life-year, which can be applied to the number of years the offender was incarcerated. The Landefeld and Seskin (1982) study was published prior to the inception of contingent valuation, which can also be used here as a monetizing method.

Nilsson (2014) provides a more recent and more detailed coverage of methods used to monetize the human life. In order to determine the costs of incarceration over Montana's most widely available rehabilitative alternative the marginal costs of each program should be compared. This information can be matched with the sanction the offender received and information from the offender's risk/needs assessment. If this is not possible, contingent valuation can be used (Nagin, Piquero, Scott, and Steinberg 2006).

OFFICER TIME ON MJDTF ACTIVITIES

The total number of hours spent on all MJDTF activities, by each employee who was involved, should be paired with each employee's hourly wage and the total cost should be summed. This information can be obtained from agency records. Officer time from outside agencies assisting with MJDTF activities should also be included. It is important to insure that no work is unnecessarily duplicated.

CIVIL AND/OR CRIMINAL LITIGATION RESULTING FROM MJDTF ACTIVITIES

It is possible that MJDTFs are involved in litigation outside of criminal prosecution. Whether the MJDTF is the petitioner or the litigant in the dispute, the costs of any litigation must be included. This cost can be estimated by summing the totals from agency records.

FEAR OF DRUG-RELATED CRIME

Fear of crime can originate from direct and/or vicarious experiences with criminal activity. For those who are experiencing it, their quality of life can be reduced in many ways (Garofalo, 1981; Ross, 1993). Fear can lead to the purchase of a burglar alarm, the avoidance of certain locations, and even the relocation of a family. Being pressured into these various actions by fear of criminal

victimization can lead to psychological harm. A state-representative survey that includes questions about fear of crime will provide evidence that can be used to estimate a monetary value of the fear of crime. Respondents will be asked directly about any costs associated with relocation or the purchase of proactive protective measures to protect against personal victimization.

If a property owner has invested in protective equipment, the property value increase associated with the installation must be subtracted from the cost of the equipment. In order to determine the value of the time of those who utilized avoidance behaviors, opportunity costs and revealed preferences can be matched with the amount of time spent in avoidance (Cohen and Bowles 2010). Psychological harm is a trickier issue; the quality adjusted life year method and contingent valuation are useful approaches to monetizing psychological harm resulting from the fear of crime (Dolan et al. 2005; Dolan and Peasgood 2007). Survey questions should be specifically tailored to address fear stemming from drug-crime.

COMMUNITY DISRUPTION AS THE RESULT OF DRUG-RELATED CRIME

If drug-crime goes unchallenged the social order can decay and contribute to social disorganization. This disorganization can devalue local properties and reduce residents' abilities to effectively monitor and appropriately respond to things happening in their neighborhood. Social disorganization will persist if local residents avoid community involvement. When community members perceive others to be drug-involved they may choose to avoid any type of association or interaction with them. Some community members may be addicted to drugs and avoid community involvement in order to prevent detection. Even some low-level (Cannabis) drug users may be interested in community involvement but deterred from it due to fear of detection and sanction. The law-enforcement activity of MJDTFs likely reduces social disorganization, but it is also possible that some of their actions increase the level of social disorganization.

A state-representative survey should include questions that measure community-level issues associated with drug-crime. The survey questions should be thematic to the presence of drug use, drug abuse, and crime associated with the manufacturing and distribution of drugs. In order to monetize these costs, the survey will ask for self-reported, out-of-pocket costs associated with things such as relocation due to neighborhood disorganization. Contingent Valuation, a stated preferences approach, can be used to ask residents' their willingness to pay for improved social organization in their neighborhood (Dolan and Peasgood 2007).

Thaler (1978), developed a costing method known as Hedonic Pricing. Hedonic Pricing utilizes various measures of a neighborhood's quality, including crime rates, to determine property values. Crime-rate disparities can be matched with housing cost disparities in order to estimate the cost of crime. Although this method is useful, it values an index of crime rather than specific crime types and requires a large, detailed, data set (Cohen and Bowles 2010). Given the sparse population, in combination with the large geographic area of Montana, it is likely that a data set, detailed enough to determine the costs of drug-crime associated with housing and property values, currently does not exist and would need to be built.

ESTIMATING THE BENEFITS OF MJDTFS IN MONTANA

COMMUNICATION/COLLABORATION

Communication and Collaboration between MJDTFs, their participating agencies, and even outside agencies can save time and other resources. In order to determine the degree to which MJDTFs and associated agencies effectively communicate and cooperate, surveys can be used. Officers working on the MJDTFs, members of the agencies that they work for, and members of outside agencies assisting MJDTFs should be surveyed on perceptions of time-savings and perceptions of work duplication. The money saved by outside agencies represents one of the values in this section. The total time saved should be multiplied by the wage rate of each of the personnel whose time was saved.

IDENTIFICATION AND TARGETING OF THOSE INVOLVED IN DRUG MANUFACTURING, TRAFFICKING, AND DRUG-RELATED VIOLENCE

Identifying and targeting those who are involved in drug trafficking, manufacturing, and/or drug-related violence has the potential to save the State of Montana a great deal of money. Although personal drug use is the extent of many drug abusers criminal activity, those involved in the activities mentioned above inflict disproportionately large costs to society.

Once drug intelligence data is used to identify these serious drug offenders, their criminal histories can be examined. The offenders' criminal histories pre- and post-sanction can be compared and specific crime-costing methods, described by McCollister, French, and Fang (2010), can be used to determine the value of the offender's reduced criminal involvement. If an offender was involved in drug-related violence pre-sanction but desisted post-intervention, drug-related, violent crime costing methods can be used (Dolan, Loomes, Peasgood, and Tsuchiya 2005). Contingent Valuation is another valid method for monetizing the value of reduced gun violence (Ludwig and Cook 2001; Atkinson, Healy and Mourato 2005).

MJDTFs tout stronger convictions, stronger sanctions, and fewer plea-bargains. Depending on the offender, a stronger conviction may not benefit the state. The benefit to the state for each offender should be evaluated, in terms of their risks and needs, which will provide an indication of appropriate sanctions and how the offender's criminality will be affected. The use of plea-bargaining in MJDTF cases should be compared to the use of plea-bargaining in non-MJDTF cases. If a convict is incarcerated when their criminal career could have been as easily interrupted with a community-based rehabilitation program, these costs should be summed with other benefits of this section in order to determine the overall value of this goal.

CURTAILING THE USE, REDUCING SUPPLY AND DEMAND OF DANGEROUS DRUGS

The use and abuse of dangerous drugs can be limited in different ways. Demand reduction strategies can target users, manufacturers, and/or distributors and are used to increase the costs of substances and to reduce the demand by potential consumers. Supply reduction strategies can target manufacturers, distributors, and businesses that supply drug manufacturers with the necessary equipment. Unfortunately, some children live with parents who abuse drugs. These children are exposed to crime and criminal attitudes from an early age, putting them at great risk of

a criminal career. By disrupting the family, that normalizes drug abuse and crime, the child in that family may be reoriented and deterred from becoming involved in drugs.

Preventing a child from spiraling into a life of crime is potentially the largest benefit produced by the activities of MJDTFs. Crime and delinquency represent huge costs to American taxpayers and prevention is often much cheaper than intervention. Cohen and Piquero (2009) provide methods for estimating the value of saving a child from a life of crime. Importantly, the authors estimate the value of a child saved at birth up to 14 years of age. The number of children MJDTFs have diverted from drug abusing parents should be paired with these methods in order to determine the monetary value of this work. These children should be examined periodically, in order to determine that they are not criminally involved.

A state-representative survey should be used to determine the public's perception of the availability/ease of access to dangerous drugs in their community and how availability/ease of access is affected by the activities of MJDTFs. The survey should also examine the effectiveness of MJDTFs educational programs by asking what was learned and how, if, and when the knowledge acquired from these educational programs is applied. If the educational programs were effective, more citizens will call to report suspicious activity and more citizens will report no desire for drug use. Drug abuse treatment facilities can provide the number of people presenting for treatment. If a notable number of people present for treatment following successful MJDTFs activities, the supply of that particular drug was likely reduced. Retailers should be surveyed on the extent to which MJDTFs work with them on limiting access to drug manufacturing supplies. Medical professionals should be surveyed on the extent to which MJDTFs work with them on reducing the rates of prescription drug diversion.

Many dangerous drugs have deleterious effects on the human body, which is where a sizable portion of the cost associated with drug abuse originates. Drug-abuse related healthcare is costly, especially in the United States. Many drug abusers are destitute and when MJDTFs stop them from further drug abuse, they save taxpayers from the healthcare costs associated with these offenders' drug abuse. Drug abuse is akin to a disease and the costs of various illnesses have been established. In order to determine the value of reduced drug-use and abuse, the cost-of-illness method should be used (Hodgson and Meiners 1982) in conjunction with MJDTF evidence of reduced drug abuse. Harwood, Fountain, and Livermore (1999) provide more methods and estimates for the costs of drug and/or alcohol abuse. Finally, Cartwright (2008) uses these methods in a modern application on the costs of drug abuse.

DISRUPTION AND DISMANTLING OF DRUG ORGANIZATIONS

Criminal organizations regulating the production and distribution of dangerous drugs in Montana are perhaps the most serious issue, in terms of drug-law enforcement. These organizations initiate people into the world of drug abuse, fence stolen goods, and encourage other types of crime. In order to monetize these benefits, crime rates should be examined both before and after the disruption of the organization. The rate disparities from before and after the disruption can provide evidence for the extent that the organization influenced the crime rate. In their 2010 study, McCollister, French, and Fang provide a series of methods for estimating the costs of specific crimes to society.

MEDIA AND PUBLIC KNOWLEDGE OF MJDTF WORK

Media coverage of MJDTF activities in Montana can increase public support for the police while allowing citizens to feel safer in their neighborhoods with the knowledge that law enforcement is proactively addressing criminal activities associated with drug use and abuse. Surveying a representative sample of Montana residents on perceptions of law enforcement's willingness to intervene in the lives of drug-involved offenders and attitudes toward drug-use is needed.

(If a person is opposed to the enforcement of vice-crimes or the enforcement of Marijuana laws the media consumption would certainly have the opposite effect depending on the type of drug and type of offender involvement.)

(This is tricky to monetize... reducing fear through media consumption is likely contingent on the personality traits of the consumer... news consumers may be tuning-in because they are already afraid or news consumption could increase a person's level of fear.)

ADDITIONAL BENEFITS

MJDTFs provide benefits in addition to those articulated above. For example, participating officers gain access to further training, MJDTF members assist outside agencies, provide education to the general public, and ill-gotten goods are seized. Also, law enforcement officers in Montana are required to log a specified number of additional training hours, each year. As a result, the total number of training hours saved by participating agencies, because their officers were involved in training through MJDTFs, must be summed. In order to calculate the monetary value of this benefit, this information will be matched with data on the participating agencies training costs per hour, whether the training is done in-house or the officer is sent elsewhere. Officers should be evaluated in order to assess the degree to which the training impacted the officer's knowledge and expertise.

MJDTFs can assist outside agencies with drug investigations. The assistance provides benefits to these agencies by reducing the resources spent on the investigation. The total number of hours worked by personnel of the MJDTF, on the case they're assisting with, can be equated to the total number of hours that were saved by the agency receiving assistance. The outside agencies officer's hourly wages can be used to calculate the benefits provided by the MJDTF assistance. In addition, some MJDTFs participate in equipment sharing programs. These programs allow smaller jurisdictions access to technology and resources that would otherwise be inaccessible. The total number of hours of use, of all technology and resources shared, can be matched with the value of the object and the objects maximum service life. If an item is expected to function for 1,000 hours, costs \$1,000, and is used by the sharing agency for 40 hours, the sharing of the object provided a benefit of \$40.

MJDTFs provide education to various civic groups and schools, across the state. The groups that are provided these educational opportunities should be surveyed on what was learned, how it will be used, and what they would be willing to pay for the knowledge improvement. Contingent Valuation is a costing method useful for this process (Nagin, Piquero, Scott, and Steinberg 2006). MJDTFs seize money, goods, and property, which has been deemed ill-gotten or acquired through criminal activity, using civil assets forfeiture. The total monetary value of these seizures, that remain in or are returned to the state, should simply be summed.

CONDUCTING THE COST-BENEFIT ANALYSIS

In order to generate the estimates for the cost and benefit domains outlined in the previous section, both existing data and new data will be needed. In those instances where new data will be needed, discussion will need to take place about how the data will be collected, where the funds needed to collect the data will be located, and whether or not the time and costs associated with the generation of the new data are important enough to pursue. In the event that required data are available for some, but not all, of the MJDTF locations, estimates based on regression scores, or average scores, from locations where the data is known could be used to predict what the scores would likely be in places for which data is not currently available.

EXISTING DATA

There are a number of currently existing sources of data that can be used to measure the cost and benefits of MJDTF activities in Montana. In the paragraphs below, a brief description of the data will be provided along with a description of which cost and/or benefit domain they will provide information for. MJDTF records will be needed to verify the dollars that were spent to cover operating costs, officers' time spent on MJDTF activities, civil or criminal litigation costs that resulted due to MJDTF activities, evidence to support the offender was involved in manufacturing, trafficking, and/or drug-related violence.

A key piece of the information will come from the Montana Incident-Based reporting system (MTIBRS). MTIBRS is the central repository for all criminal offense and arrest data in Montana. Approximately ninety-four percent of the local law enforcement agencies in the state reported twelve months of crime data in 2011, representing about 99% of Montana's total population. A recent development (January, 2013) that will aid in the monetization of MJDTF activities in Montana is the incorporation of current and historical drug task force data in to the MTIBRS. This data will be used to assess operating costs and criminal justice costs. It will also be used to measure benefits associated with the identification of offenders who are involved in manufacturing, trafficking, and crime related to drug-involved activities; reductions in the supply and demand of dangerous drugs, and the disruption and dismantling of drug organizations.

The Offender Management Information System (OMIS) is operated and maintained by the Montana Department of Corrections (MDOC) in conjunction with ten other states. All eleven partners work together to encourage the sharing of data across the country. It is a web-based system that provides MDOC staff with real-time information that includes offenders' criminal and incarceration histories, disciplinary infraction records and risk and needs assessment information. This information will be used in conjunction with the parallel database for juveniles, the Juvenile Court Accountability and Tracking System (JCATS). The JCATS system is operated and maintained by the Montana Office of the Supreme Court, Court Administrator's Office. Juvenile probation officers from all 22 judicial districts provide data on all juvenile referrals, case disposition, and conditions imposed. Data from these systems will be used in conjunction with the MTIBRS to estimate both costs and benefits of MJDTF activities.

The Detention Data Information System (DDIS) is a statewide repository for local jail based booking information. The DDIS contains a standardized guide for reporting jail booking data for Montana's 37, adult jails and 11, seventy-two hour holding facilities. The parallel system for juveniles is the Juvenile Detention Data Reporting System (JDDRS). The JDDRS includes data for juveniles placed in

secure detention, either at a local facility or at a regional juvenile detention facility. This data includes demographic data, length of stay, offenses charged, and date of probable cause hearing.

In addition, data will need to be requested from medical and healthcare organizations in Montana. Specifically, a review of emergency room visit data across the state will be needed to determine whether or not, and to what extent, information about crime and in particular drug-related crime is available and the costs associated with these visits can be estimated. Healthcare estimates data, used to estimate the benefits associated with desistance from drug use and its impact on health improvement and well-being, will also be requested.

PRIMARY DATA THAT IS NEEDED

In 2010, the Montana Crime Victimization and Safety Survey (MCVSS) was administered. Recently, the Montana Board of Crime Control was awarded a Statistical Analysis Center grant from the Bureau of Justice Statistics to develop an updated survey. Planning for the online survey will begin in September, 2014. The data collection for the Montana Statewide Victimization Survey (MSVS) will take place in late 2015 or early 2016. It will involve the collection of data based on questions that were asked in the 2010 MCVSS. Additional questions will be added to the MSVS that specifically address victimization associated with drug-involved crime, attitudinal questions about residents' views on the ability of the police to effectively manage drug-related crime, and behavioral questions about avoidance behaviors and precautions that residents are taking to avoid and/or protect themselves from drug-related crime. New to the 2015 survey will be a sub-sample based on non-residents who are living in Northeastern Montana for extended periods of time associated with the work that they are doing in the Bakken Oil Shale.

In the same Bureau of Justice Statistics award, funds were allocated to complete the 2015 Montana Jail Administrators Survey (MJAS). The MJAS will be modeled after the survey instrument used in the Federal Survey of Jails. Open-ended questions will be added to obtain information from administrators, in all 37, adult jails and 11, seventy-two hour holding facilities, about specific issues that are occurring and suggestions on how best to approach them. Information about drug-involved offenders will be solicited as well as information on the issues that these offenders are involved in while being held in jail. The final version of the technical report will be submitted no later than August 31, 2015.

In 2015, the Statistical Analysis Center at the Montana Board of Crime Control will be eligible to submit a new request to the Bureau of Justice Statistics. One project that will need to be considered in order to complete the cost-benefit analysis of Montana's MJDTFs is a survey that asks questions to residents about community issues associated with issues regarding drug-involved offenders that will not be included on the 2015 MSVS. If awarded, this survey would not take place prior to 2016.

Surveys will also need to be developed and administered to the officers who work on the MJDTFs. These surveys could include both closed-ended (e.g. how many hours per week are you involved in MJDTF activities?) and open-ended questions that would require officers to provide narrative (e.g. accounts of the MJDTF activities performed on a regular basis; MJDTFs benefits and challenges). Searching for the funding to cover the costs associated with the development of the surveys, administration to MJDTF officers, and analysis of the data should begin as soon as possible.

SECTION FIVE: DISCUSSION AND CONCLUSION

The objective of this report has been to outline the development of a research design to conduct an economic analysis of Montana's seven MJDTFs. Montana has maintained a High Intensity Drug Trafficking Area (HIDTA) designation since 2001 and is a member of the Rocky Mountain HIDTA. As Montana's State Administering Agency (SAA), the Montana Board of Crime Control (MBCC) has been designated to receive JAG block grant funding from the U.S. Department of Justice, Bureau of Justice Assistance, for more than 20 years.

The report has included a review of the existing literature that has been published on economic assessments of MJDTFs, the feasibility and factors that will be needed in order to complete an economic assessment, and a review of the importance of existing data needed to conduct the analysis. The purpose of the cost-benefit analysis that has been advocated is to gather evidence that can be used to more fully gauge the benefits to the State and local communities relative to the costs associated with the funding and support of MJDTF activities. This information provides for an evidence-based assessment of funding decisions about MJDTFs in the future by MBCC.

In planning for putting the research design in to practice, the following considerations are merited. First, care will need to be taken to ensure that all estimates of the cost and benefit domains are mutually exclusive. Bias from including either costs and/or benefits in more than one domain could have implications on the validity of the findings in the cost benefit analysis. Cost-benefit analyses are intended to examine monetization over time. To represent the costs in the time value of money, discounting of future costs is necessary. In prior criminal justice evaluation, "discounting" by 2-3% any estimates that will be included on future costs/benefits is common. The use of a combination of both the most liberal and most conservative estimates that could be used and reporting these as a range is recommended. This concept is addressed in the literature under the heading of "sensitivity analysis" (see CBKB.org Cost-Benefit Knowledge Bank).

Second, there are reliability threats associated with how to know for sure that the efforts of MJDTFs really result in the cessation of drug-related activities or, under the valve theory position, that they are simply displaced to other areas that are not part of the MJDTF (see Karmen 1990 for an extended discussion of valve theory). In light of this concern, methodologies in prior studies between MJDTF counties and those that employed traditional law enforcement approaches are compelling. These studies compared differences in the level of drug arrests, the types of drugs that are seized, characteristics of the targets (serious versus minor offenders) in drug investigations, likelihood of arrests, and length of arrests for those convicted of drug offenses.

Third, it is important to recognize the limitations of the cost-benefit approach. The "bottom-up" approach presented above requires monetization for each of the cost/benefit domains to be estimated and then summed together for the overall amount. While conceptually this is more reliable than a top-down approach, researchers have yet to fully account for all cost components. For example, no estimates have been made of the monetary value of fear of crime, social degradation, or avoidance behavior by potential victims (for recent attempts to fill some of these gaps, see Cohen and Piquero 2009; Dolan et al. 2005; Moore 2006).

Fourth, consideration should be given to the advantages and limitations associated with the length of time the estimates of costs and benefits will be based on. Evidence from the review of the literature emphasizes a series of years for cost-benefit analysis rather than a single year. Review of the available data for the estimates and any changes that may have occurred should be included in

this decision. In addition, consideration should be given to the unit of analysis that be used as the basis for estimating costs and benefits. Will these estimates be based on the aggregate (all MJDTFs), individual MJDTFs or both? This is an important consideration. MJDTFs file separate grant applications for funding, but as outlined above, the money comes from a common pool.

Fifth, there is a need to include law enforcement perspectives in this process. Current MJDTF officers and administrators who supervise their work should be invited to contribute to the research design that has been outlined in this report. As mentioned above, no prior studies of economic assessments of MJDTFs were available. The costs and benefits included here were almost exclusively drawn from prior studies that focused on assessing other programs. The need for law enforcement understanding about the role and need for evidence-based assessments cannot be overstated.

In closing, each year Federal funding to the State of Montana becomes more difficult to obtain. Evidence-based evaluations of program effectiveness are becoming the norm as the amount of money that is available continues to decline. It is imperative that a means to provide evidence on the effectiveness of MJDTF activities in Montana be developed and systematically used to justify future funding. Drug-related social problems have been and will continue to be a topic of great importance at the local, state, and national levels. It is expected that the strategy outlined in this report is a positive step forward in efforts to plan for future development and improvement of criminal justice responses.

REFERENCES

- Aos, Steve, Stephanie Lee, Elizabeth Drake, Annie Pennucci, Tali Klima, Marna Miller, Laurie Anderson, Jim Mayfield, and Mason Burley. 2011. Return on Investment: Evidence-Based Options to Improve Statewide Outcomes Technical Appendix II Methods and User-Manual. 1–124. *Washington State Institute for Public Policy*. Retrieved October 29, 2013 (<http://www.adolescentwellness.org/wp-content/uploads/2011/11/ROI-SSDP-2.11-per-1-report-appendix-2.pdf>).
- Atkinson, Giles, Andrew Healey, and Susana Mourato. 2005. Valuing the Costs of Violent Crime: A Stated Preference Approach. *Oxford Economic Papers* 57(4):559–85.
- Bunch, Jackson, Jody Clay-Warner, and Jennifer McMahon-Howard. 2013. The Effects of Victimization on Routine Activities. *Criminal Justice and Behavior* 41(5):574–92.
- Campbell, Jacquelyn C. 2002. Health Consequences of Intimate Partner Violence. *The Lancet* 359(April):1331–6.
- Cárdenas, Gabriel G. 2002. An Assessment of the Multijurisdictional Drug Task Forces in Texas: A Case Study. Master's Thesis 1–91. Retrieved September 17, 2013 (<http://ecommons.txstate.edu/arp/51>).
- Cartwright, William S. 2008. Economic Costs of Drug Abuse: Financial, Cost of Illness, and Services. *Journal of Substance Abuse Treatment* 34(2):224–33.
- Chaiken, Jan and Marcia R. Chaiken. 1982. Varieties of Criminal Behavior. 1–321. (Rand Corporation: Washington, D.C.: U.S. Department of Justice.) Retrieved July 23, 2014 (<http://www.rand.org/content/dam/rand/pubs/reports/2007/R2814.pdf>).
- Chaiken, Jan M., Marcia R. Chaiken, and Clifford Karchmer. 1990. Multijurisdictional Drug Law Enforcement Strategies: Reducing Supply and Demand. 1–134. Washington, DC: U.S. Department of Justice. Retrieved July 23, 2014 (<https://www.ncjrs.gov/pdffiles1/Digitization/126658NCIRS.pdf>).
- Cohen, Mark A. 1988. Pain, Suffering, and Jury Awards: A Study of the Cost of Crime to Victims. *Law & Society Review* 22(3): 537–55.
- Cohen, Mark A. 1998. The Monetary Value of Saving a High-Risk Youth. *Journal of Quantitative Criminology* 14(1):5–33.
- Cohen, Mark A., and Roger Bowles. 2010. “Estimating Costs of Crime.” Pp. 143–162 in *Handbook of Quantitative Criminology*, edited by Alex R. Piquero and David Weisburd New York, NY: Springer New York.
- Cohen, Mark A. and Alex R. Piquero. 2009. New Evidence on the Monetary Value of Saving a High Risk Youth. *Journal of Quantitative Criminology* 25(1):25–49.

- Coker, Ann L., Keith E. Davis, Ileana Arias, Sujata Desai, Maureen Sanderson, Heather M. Brandt, and Paige H. Smith. 2002. Physical and Mental Health Effects of Intimate Partner Violence for Men and Women. *American Journal of Preventive Medicine* 23(4):260–8.
- Coldren Jr., James R. 1993. Drug Control Task Forces: Creating and Implementing a Multi-Jurisdictional Unit. 1–5. Washington, DC: U.S. Department of Justice. Retrieved July 23, 2014 (<https://www.ncjrs.gov/pdffiles1/Digitization/138332NCIRS.pdf>).
- Coldren Jr., James R., Edmund F. McGarrell, Michael J. Sabath, Kip Schlegel, and Lisa A. Stolzenberg. 1993. Multijurisdictional Drug Task Force Operations: Results of a Nationwide Survey of Task Force Commanders. Washington, D.C.: Criminal Justice Statistics Association.
- Coldren Jr., James R. and Michael J. Sabath. 1992. Multijurisdictional Drug Control Task Forces 1988-1990: Critical Components of State Drug Control Strategies. 1–49. Washington, D.C.: U.S. Department of Justice. Retrieved July 23, 2014 (<https://www.ncjrs.gov/pdffiles1/Digitization/136840NCIRS.pdf>).
- Coldren Jr., James R., Kenneth R. Coyle, and Sophia D. Carr. 1990. Multijurisdictional Drug Control Task Forces 1988: Critical Components of State Drug Control Strategies. 1–70. Washington, D.C.: U.S. Department of Justice. Retrieved July 23, 2014 (<https://www.ncjrs.gov/pdffiles1/Digitization/124320NCIRS.pdf>).
- Corsaro, Nicholas, Rod K. Brunson, and Edmund F. McGarrell. 2010. Evaluating a Policing Strategy Intended to Disrupt an Illicit Street-Level Drug Market. *Evaluation Review* 34(6):513–48.
- Cost-Benefit Knowledge Bank for Criminal Justice. “Cost-Benefit Analysis Toolkit.” www.cbkb.org. Retrieved March 12, 2013. (<http://cbkb.org/toolkit/types-of-economic-analysis/>).
- Dolan, Paul, Graham Loomes, Tessa Peasgood, and Aki Tsuchiya. 2005. Estimating the Intangible Victim Costs of Violent Crime. *British Journal of Criminology* 45(6):958–76.
- Dolan, Paul, and Tessa Peasgood. 2007. Estimating the Economic and Social Costs of the Fear of Crime. *British Journal of Criminology* 47(1):121–32.
- Dugan, Laura. 1999. The Effect of Criminal Victimization on a Household’s Moving Decision. *Criminology* 37(4):903–30.
- Frantzen, Durant, and Salih Hakan Can. 2009. Assessing HIDTAs and Vehicle Stops in Narcotics Trafficking Research. *Professional Issues in Criminal Justice* 4(1):23–38.
- Garofalo, James. 1981. The Fear of Crime: Causes and Consequences. *Journal of Criminal Law and Criminology* 72(2):839–57.
- Greenberg, David F. 1990. The Cost-Benefit Analysis of Imprisonment. *Social Justice* 17(4):49–75.
- Harwood, Henrick J., Douglas Fountain, and Gina Livermore. 1999. Cost Estimates for Alcohol and Drug Abuse. *Addiction* 94(5):631–47.

- Hodgson, Thomas A., and Mark R. Meiners. 1982. Cost-of-Illness Methodology: A Guide to Current Practices and Procedures. *The Milbank Memorial Fund Quarterly. Health and Society* 60(3):429–62.
- Horowitz, Jake, and Edwin Zedlewski. 2006. Applying Cost Benefit Analysis to Policing Evaluations. *Justice Research & Policy* 8(1):51–66.
- Jefferis, Eric S., James Frank, Brad W. Smith, Kenneth J. Novak, and Lawrence F. Travis III. 1998. An Examination of the Productivity and Perceived Effectiveness of Drug Task Forces. *Police Quarterly* 1(3):85–107.
- Karmen, Andrew A. 1990. *Crime Victims: An Introduction to Victimology, 2nd Edition*. Belmont, CA: Wadsworth.
- Kilpatrick, Dean G., Benjamin E. Saunders, Lois J. Veronen, Connie L. Best, and Judith M. Von. 1987. Criminal Victimization: Lifetime Prevalence, Reporting to Police, and Psychological Impact. *Crime & Delinquency* 33(4):479–89.
- Landefeld, J. Stephen, and Eugene P. Seskin. 1982. The Economic Value of Life: Linking Theory to Practice. *American Journal of Public*
- Levine, M. and D. Martin. 1992. Drug Deals Have No Boundaries: Multijurisdictional Narcotics Task Forces. *Law Enforcement Technology* 19(5):34–7.
- Lombardo, Robert M. and David E. Olson. 2009. Organizational Approaches to Drug Law Enforcement by Local Police Departments in the United States: Specialized Drug Units and Participation in Multi-Agency Drug Task Forces. *Justice Research and Policy* 11(1):45–75.
- Ludwig, Jens, and Phillip J. Cook. 2001. The Benefits of Reducing Gun Violence: Evidence from Contingent-Valuation Survey Data. *The Journal of Risk and Uncertainty* 22(3):207–226.
- Mazerolle, Lorraine, David Soole, and Sacha Rombouts. 2007. Drug Law Enforcement: A Review of the Evaluation Literature. *Police Quarterly* 10(2):115–153.
- McCollister, Kathryn E., Michael T. French, and Hai Fang. 2010. The Cost of Crime to Society: New Crime-Specific Estimates for Policy and Program Evaluation. *Drug and Alcohol Dependence* 108(1):98–109.
- McGarrell, Edmund F. and Kip Schlegel. 1993. The Implementation of Federally Funded Multijurisdictional Drug Task Forces: Organizational Structure and Interagency Relationships. *Journal of Criminal Justice* 21:231–44.
- Miller, Ted R., David T. Levy, Mark A. Cohen, and Kenya L.C. Cox. 2006. Costs of Alcohol and Drug-Involved Crime. *Prevention Science* 7(4):333–42.
- Nagin, Daniel S., Alex R. Piquero, Elizabeth S. Scott, and Laurence Steinberg. 2006. Public Preferences for Rehabilitation versus Incarceration of Juvenile Offenders: Evidence from a Contingent Valuation Survey. *Criminology & Public Policy* 5(4):627–52.

- Nilsson, Andreas. 2014. The Monetary Value of Human Life: Examining the Differences between Sectors. Master's Thesis 1–40. Retrieved July 17, 2014. (<http://lup.lub.lu.se/luur/download?func=downloadFile&recordId=4460825&fileId=4460826>).
- Olson, David E., Stephanie Albertson, Jennifer Brees, Andrew Cobb, Lisa Feliciano, Rebecca Juergens, Gerard F. Ramker, and Robert Bauer. 2002. New Approaches and Techniques for Examining and Evaluating Multi-Jurisdictional Drug Task Forces in Illinois. 1–53. Chicago, IL: Illinois Criminal Justice Information Authority. Retrieved December 20, 2013 (<http://www.icjia.state.il.us/public/pdf/ResearchReports/NewApproaches.pdf>).
- Pratt, Travis C., James Frank, Brad W. Smith, and Kenneth J. Novak. 2000. Conflict and Consensus in Multijurisdictional Drug Task Forces: An Organizational Analysis of Personnel Attitudes. *Police Practice* 1(4):509–25.
- Rajkumar, Andrew S., and Michael T. French. 1997. Drug abuse, Crime Costs, and the Economic Benefits of Treatment. *Journal of Quantitative Criminology* 13(3):291–323.
- Ross, Catherine E. 1993. Fear of victimization and health. *Journal of Quantitative Criminology* 9(2):159–75.
- Russell-Einhorn, Malcolm L. 2003. Fighting Urban Crime: The Evolution of Federal-local Collaboration. 1–14. Washington, D.C.: U.S. Department of Justice. Retrieved April 29, 2013 (<https://www.ncjrs.gov/pdffiles1/nij/197040.pdf>).
- Russell-Einhorn, Malcom L., Shawn Ward, and Amy Seeherman. 2004. Federal-Local Law Enforcement Collaboration in Investigating and Prosecuting Urban Crime, 1982-1999: Drugs, Weapons, and Gangs. 1–153. Washington, D.C.: U.S. Department of Justice. Retrieved April 28, 2013 (<https://www.ncjrs.gov/pdffiles1/nij/grants/201782.pdf>).
- Sabath, Michael J., John P. Doyle, and John W. Ransburg. 1990. Multijurisdictional Drug Task Forces in Indiana: The First Two Years of Operations. 1–23. Washington, D.C.: U.S. Department of Justice. Retrieved December 19, 2013 (<http://www.ncjrs.gov/app/abstractdb/AbstractDBDetails.aspx?id=138573>).
- Schlegel, Kip, and Edmund F. McGarrell. 1991. An Examination of Arrest Practices in Regions Served by Multijurisdictional Drug Task Forces. *Crime & Delinquency* 37(3):408–26.
- Sherman, Lawrence W. 1997. "Policing for Crime Prevention." Section 8:Pp.1–58 in *Preventing Crime: What Works, What Doesn't, What's Promising*, edited by Lawrence W. Sherman, Denise C. Gottfredson, Doris Layton MacKenzie, John Eck, Peter Reuter, and Shawn Bushway. Washington, D.C.: U.S. Department of Justice.
- Smith, Brad W., Kenneth J. Novak, James Frank, and Lawrence F. Travis III. 2000. Multijurisdictional Drug Task Forces: An Analysis of Impacts. *Journal of Criminal Justice* 28:543–
- State of Georgia. 2013. "State of Georgia: Multi-Jurisdictional Drug Task Force Evaluation." Georgia Statistical Analysis Center and Applied Research Services, Inc.

- State of Minnesota. 2012. Drug and Violent Task Forces: 2012 Annual Report. 1–19. Office of Justice Programs, Minnesota Department of Public Safety. Retrieved April 23, 2013 (<https://dps.mn.gov/divisions/ojp/forms-documents/Documents/Gang%20Criteria/2012%20task%20force%20report%20Final.pdf>).
- Thaler, Richard. 1978. A Note on the Value of Crime Control: Evidence from the Property Market. *Journal of Urban Economics* 5:137–45.
- Wayson, Billy L. and Gail S. Funke. 1989. What Price Justice? A Handbook for the Analysis of Criminal Justice Costs. 1–103. Washington D.C.: National Institute of Justice. Retrieved July 23, 2014 (<https://www.ncjrs.gov/pdffiles1/Digitization/106777NCJRS.pdf>).
- Xie, Min, and David McDowall. 2008. Escaping Crime: The Effects of Direct and Indirect Victimization on Moving. *Criminology* 46(4):809–39.
- Zedlewski, Edwin W. 2010. Adding Value to Justice Outcome Evaluations. Washington, D.C.: National Institute of Justice. 1–12. Retrieved December 20, 2013 (<https://www.ncjrs.gov/pdffiles1/nij/grants/230402.pdf>).
- Zedlewski, Edwin W. 1987. Making Confinement Decisions. 1–6. Washington, D.C.: National Institute of Justice. Retrieved July 20, 2014 (<https://www.ncjrs.gov/pdffiles1/Digitization/105834NCJRS.pdf>).
- Zedlewski, Edwin W. 1985. When Have We Punished Enough? *Public Administration Review* 45(Special Issue: Law and Public Affairs):771–9.
- Zedlewski, Edwin W. 1983. Deterrence Findings and Data Sources: A Comparison of the Uniform Crime Reports and the National Crime Surveys. *Journal of Research in Crime and Delinquency* 20(2):262–76.